A METHOD OFCOMPENSATING FOR CORRELATION BETWEEN MULTIPLE ANTENNAS

ABSTRACT

A method is provided of transmitting signals from two or more antennas in a wireless telecommunications network, in which at least one data sequence is space-time block encoded. Before transmitting the data sequence, a linear transformation is applied to the data sequence, the linear transformation being adapted to use knowledge of correlation among the antennas to at least partially compensate the transmitted signals for said correlation. The linear transformation depends on the eigenvalues of an antenna correlation matrix. The linear transformation further depends on a ratio of symbol energy (E_s) to noise variance (σ^2). The method includes transmitting the encoded and transformed data sequence.